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SUPPURATIVE PELVIC PERITONITIS: REPORT OF A CASE.*

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The case which I bring to your attention to-night, and which I hope may serve as the text for valuable discussion on certain mooted questions of procedure, is that of a woman aged thirty, married five years, never pregnant.

The first menstruation occurred at the age of fourteen and was regular until two years before marriage, when it began to be profuse and of seven or eight days' duration. About one year before marriage she had an attack of peritonitis following an unusually painful menstrual period.

After marriage, owing to the change from an active to an indolent life, she grew very fleshy. To reduce this she began the excessive use of vapor and other baths followed by severe exercise in the form of long walks.

This was continued for two years, during which time she had two attacks of pelvic peritonitis, occurring each time after a Turkish bath taken during the menstrual period.

She placed herself under treatment for a constant pain in the right side of the pelvis, dating from the last attack of peritonitis.

The uterus was forward and immovable. There was some induration in each broad ligament. Treatment improved this condition somewhat until, owing to imprudence during menstruation, she began to have acute pelvic pain, and tenderness over right side of the lower abdomen; temperature about 102° F. After a few days a swelling could be felt high in this side of the pelvis extending above the pelvic brim. Owing to the absence of bowel symptoms, the probability of appendicitis was excluded. There was a severe chill followed by a temperature of 104° F. Under ether anæsthesia this tumor could be distinctly felt through the vagina but did not bulge into that passage.

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An incision was made posterior to the uterus, and by the trocar several ounces of pus were evacuated. After this the temperature fell to 101° or 102° F., but not below that point. This continued for two weeks, when there was another and more severe chill followed by a temperature of 105°. The pulse was very weak and rapid; the urine was passed involuntarily; vomiting was severe and frequent. Vaginal touch was excessively painful. The condition was one bordering on collapse.

Under chloroform anæsthesia a tumor was felt high up on the left side. This was tense and not movable. With the aspirator there was drawn from this mass nine ounces of serous fluid, somewhat blood-stained. The opening was enlarged and gauze drainage inserted. Stimulating enemata and hypodermic injections were freely given and the patient rallied slowly from the shock.

Twenty-four hours later the condition was much improved, but the temperature was still above 104°. Chloroform was again given and a finger passed into the cyst sac, at the upper limit of which a bulging could be indistinctly felt. A trocar was passed along the finger through the cyst wall and into the mass beyond, evacuating about four ounces of offensive pus. A rubber drainage-tube was inserted and the cavity irrigated with peroxide of hydrogen—one fourth strength.

After this the temperature rapidly fell to normal. The control of the bladder was restored, and the general condition rapidly improved.

Eight weeks after this operation a discharge of offensive pus and blood occurred, and pus appeared in the urine. The face, hands, and feet were swollen, and the amount of urine greatly diminished. The temperature rose to 102°. Examination of urine showed one fourth of one per cent. of albumin, few renal and bladder epithelial cells, unaltered pus and blood cells in abundance, strongly acid.

A sinus was found to exist at the site of the original incision. This was dilated, a small amount of pus was evacuated, and the cavity irrigated with peroxide.

For a week after pus had ceased to exist in the sinus there was still pus in the urine. This, however, was not constant. I drew the urine by catheter, then irrigated the bladder with boric-acid solution. A few moments later the patient passed about three ounces of clear pus. Both specimens were examined. The first clear with no pus; the second composed almost entirely of unaltered pus and blood cells. At no time was there urine present in the discharge from the abscess, showing there was no communication between this cavity and

the bladder. The unaltered pus and blood cells showed they were of cystic rather than renal origin. The origin of the pus is obscure, but may have been in some smaller cavity which was not broken up by the finger. From this time recovery was uninterrupted.

The special points of interest in this case are:

1. Recurrent attacks of pelvic peritonitis, the last going on to suppuration.

2. The occurrence of a serous cyst, separate and distinct from the abscess cavity, yet apparently originating at the same time and from the same cause.

3. The interrupted occurrence of pus in the bladder without evidence of cystitis or nephritis, or of communication with the abscess cavity.

In the non-puerperal state, pus, outside of the Fallopian tube or the ovary, is a comparatively infrequent condition. Hence a glance at the pathological steps of the abscess formation may not be amiss.

There first occur the phenomena of any inflammation; hyperæmia and dryness of the peritonæum, with exfoliation of its epithelial layer, which changes its usual smooth, glistening surface to a dull reddish appearance. Next there is an exudation of serum and fibrin, or serum, fibrin, and pus in varying proportions.

If the exudation be chiefly of serum, it may become encysted by a fibrinous exudation and may be reabsorbed.

The exudation of fibrin produces abundant false membrane and gives rise to adhesions between coils of intestine and between the uterus and neighboring organs and pelvic wall. After recovery these adhesions become thin and stretched, but probably do not disappear.

In a subacute or recurrent peritonitis the likelihood of suppuration increases with each attack.

Suppuration may be present from the beginning or may be a secondary event.

The inflammatory process forms adhesions and serum-filled spaces which may coalesce, and by the addition of irritating matter, most frequently from the Fallopian tube, suppuration occurs. The coexistence of the cyst and abscess in the case reported would seem to be thus explained.

As to the treatment of these collections of fluid, the general surgical rule that where there is pus evacuate it, applies here with equal force, the question being as to method.

When the pus is situated low in the pelvis, having origin in the cellular tissue, it is generally agreed that vaginal incision and drainage

is the only procedure. The cases of doubt are those in which the pus, as in the case reported, is situated high in the pelvis, extending above the brim.

In favor of the abdominal method it is urged that a more radical operation may be done; that the field of operation is in sight, and adhesions may be more intelligently broken up; that not only is the pus removed, but also the containing walls and pyogenic membrane—the source of the suppuration—which, if left, would invite a recurrence of the trouble.

By the vaginal method, however, with least shock to the patient, we can evacuate the pus or serum, wash out the cavity with peroxide and drain. If necessary, at some future time we can open the abdomen and remove the sac without the risk of infection that a primary section would have involved.

If fluctuation can be detected through the vaginal walls, or where there is likelihood of the pelvic organs being fused together, then vaginal incision is indicated and promises good results.

This more conservative method, too, may result in saving useful appendages.

Other advantages of the vaginal method that may be mentioned are: 1. It leaves no scar. 2. There is no danger of a subsequent hernia. 3. The abdominal viscera are not handled. 4. Patients may submit to this who would refuse the abdominal section. 5. It may be used when the intestinal adhesions are so firm that to remove the diseased structures would probably result fatally.

The removal of the uterus in cases of extensive suppuration, especially in those cases in which the endometrium is the seat of purulent inflammation, is attended with less shock than by the abdominal operation and leaves the parts in condition for perfect drainage. However, it may still be a question if curettage of the uterus with incision and drainage of the abscess will not produce as satisfactory results.

In conclusion, then, I would say that while the ideal operation in suppurative disease of the pelvic peritonæum may be cœliotomy with entire removal of diseased structures, yet the best interest of the patient is subserved by vaginal incision and drainage, leaving the question of an abdominal section for the subsequent development of the case to decide.